

Serial Number: 10/614,095
Amendment Dated February 3, 2005
Response to Office action of November 5, 2004

REMARKS

Claim 1 has been amended. Support for the amendment to claim 1 is found, for example, in the specification on page 12, lines 19-22. Therefore, no new matter is presented. Upon entry of the Amendment, claims 1-12 and non-elected claims 13-20 will be pending in the application.

I. Response to Claim Rejection under 35 U.S.C. § 112

Claims 1-4 and 7-12 were rejected under 35 U.S.C. § 112 first paragraph as failing to comply with the written description requirement. The expression "a core of 50 % or less" has been amended to the expression "a core of the grain, wherein the core of the grain corresponds to 50 % of the total mol% of silver halide in the grain." By the amendment, the meaning of the term "core" is clarified. Therefore, it is respectfully requested that this rejection be withdrawn.

II. Response to Claim Rejections Under 35 U.S.C. § 103

A. Ikari in view of Farid et al. and JP2000-066325

Claims 1-12 were rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Ikari, Farid et al. and JP2000-066325. Applicants respectfully submit that Ikari taken in view of Farid and JP2000-066325 does not disclose the addition of 90 % or more of a total iridium amount in a core region as specified in the presently claimed invention.

In Ikari, although it is disclosed that the silver halide grains may contain a coordination metal complex such as a Fe complex, a Ru complex, or an Ir complex, it is not described which portion of the silver halide grains is doped with an Ir complex. In

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the Examples of Ikari, the preparation of silver halide grains is described in column 36, line 22 to column 37, line 3. In the preparation, silver nitrate is added twice and an Ir complex is added in the second addition of silver nitrate. According to calculations based on the amounts of the components described therein, Ir is not added to the interior grain portion constituting approximately 30 % of the total silver nitrate amount, but added to the exterior portion constituting approximately 70 % of the total silver nitrate amount. By calculating the amount of Ir in the core 50% of Ikari, the amount of Ir in Ikari can be compared to that of the present invention (note that Ikari defines the core as 30% of the grain while the present invention defines the core of the grain as that portion corresponding to 50 % of the total mol% of silver halide in the grain). This calculation is performed as follows: $(50-30)/(100-30) \times 100 = 29 \%$ This result shows that the proportion of the Ir complex included in the core portion constituting 50 % of the total silver amount in Ikari is much lower, i.e., only 29%, than in the presently claimed invention. In the presently claimed invention, the proportion has to be at least 90 %.

In Farid, the specifically described portion to which Ir is doped is an intermediate portion between the interior portion constituting 50 % of the total silver amount and the exterior portion constituting 42 % of the total silver amount. In JP2000-066325, Ir is doped to an intermediate portion between the interior portion constituting 50 % of the total silver amount and the exterior portion constituting 40 % of the total silver amount. Therefore, the silver grains disclosed in these cited references are outside the scope of the claimed invention since the silver grains fail to satisfy the requirement of the claimed invention, "90 % or more of a total iridium amount is contained in a core of the grain, wherein the core of the grain corresponds to 50 % of the total mol% of silver halide in the grain."

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Since none of the cited references individually teaches or suggests the requirement of the claimed invention, the combination of the cited references also does not teach or suggest the presently claimed invention.

In the presently claimed invention, the problem of printout is sufficiently suppressed. This effect cannot be obtained if the above requirement is not satisfied as is the case with Ikari. This difference is clarified by the Declaration under Rule 1.132 submitted herewith. As seen in Table 7 of the Declaration, the printout for silver halide grains having 90% of Ir in the core portion is 50% or less than that of silver halide grains which do not have 90% of Ir in the core portion. Ikari neither teaches nor suggests that the above requirement can suppress the printout, which is a problem unique to photothermographic materials. Farid and JP 2000-066325 are not related to photothermographic materials, and do not teach nor suggest that the above requirement of 90% of Ir in the core portion can suppress the printout.

In view of the foregoing amendments and remarks, it is submitted that all of the claims currently pending in the application are in condition for allowance. Early and favorable action is respectfully requested.

Respectfully submitted,



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